

REMARKS

Claims 1, 2, 4-8, 11-14, 28, 29, 31-35, 38-41 are pending in the subject application: claims 1-14 and 28-41 stand rejected. By the above amendments, claims 3, 9, 10, 30, 36, and 37 are canceled. Favorable reconsideration of the application and allowance of all of the pending claims are respectfully requested in view of the above amendments and the following remarks.

The Examiner objects to the drawings because Figures 6 and 7 were missing from the Replacement Drawing sheets filed on 7/8/04. Applicants are resubmitting all of the Replacement Drawing sheets. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the objection to the drawings.

35 U.S.C. §102 (e)

Claims 1, 5, 7, 28, 32, and 34 stand rejected under 35 U.S.C. §102 (e) as being anticipated by U.S. Patent Application No. 2004/0111022 to Grabek et al.

Amended independent claim 1 recites, *inter alia*, a radio frequency receiver coil adapted to be extended from a catheter, said coil comprising a flexible printed wiring board comprising:

a first end of said flexible printed wiring board extending from an opening in said catheter;

a second end of said flexible printed wiring board extending from said opening in said catheter, *wherein said first end is more flexible than said second end*; and

a connection external to said catheter joining said first end to said second end to form a loop.

Applicants respectfully submit that Grabek et al. fails to teach or disclose the amended limitation of “wherein said first end is more flexible than said second end.” Moreover, on page 4, paragraph 4, the Examiner states that Grabek et al. fails “to explicitly teach the relative flexibility of the first and second ends.”

Accordingly, Applicants respectfully submit that amended independent claim 1 is novel within the meaning of 35 U.S.C. §102 (e). Therefore, dependent claims 2, and 4-7 depend from independent claim 1 and are novel over the art of record. In addition, independent claims 8, 28 and 35 incorporate the limitation “wherein said first end is more flexible than said second end” and at least for the reasons discussed above are novel over the art of record.

35 U.S.C. §103(a)

Claims 2, 3, 4, 29, 30, and 31 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application No. 2004/0111022 to Grabek et al. in view of U.S. Patent No. 6,650,063 to Nesteruk et al.

As detailed above, amended independent claim 1 includes the limitation of “wherein said first end is more flexible than said second end.” The art of record (e.g., Grabek et al., Nesteruk et al., Atalar, and Watkins et al.) fails to teach or suggest this limitation. On page 4, paragraph 4, the Examiner suggests that Reynolds et al teaches coils formed of round or flat ribbon in order to achieve flexibility, thus it would have been obvious to a person of ordinary skill

in the art to modify Grabek et al to include using a first end more flexible than the second end. Applicants respectfully disagree.

According to MPEP section 2143, Applicants respectfully submit the Examiner has failed to establish a prima facie case of obviousness. Specifically, to establish a prima facie case of obviousness three basic criteria must be met: first there must be a suggestion or motivation to combine, second a reasonable expectation of success, and third prior art references must teach or suggest all the claim limitations.

Applicants respectfully submit that none of the references teaches or suggests the claim limitation of "said first end is more flexible than said second end." Moreover, MPEP section 2141.01(a) states that "to rely on a reference under 35 U.S.C. § 103, it must be analogous prior art." Reynolds et al relates to composite guidewire technology and has no reference to a radio frequency receiver coil or any catheter device as mentioned in independent claims 1, 8, 28, and 35. Thus applicants respectfully submit that it would not be obvious, within the meaning of 35 U.S.C. § 103, to combine the teachings of Grabek et al and Reynolds et al.

Applicants respectfully submit that none of the art of record teaches relative flexibility, rather all of the art teaches flexibility in general via a round or flat ribbon. Thus, the Examiner has failed to establish a proper case of prima facie obviousness under 35 U.S.C. § 103(a).

Accordingly, because each independent claim 1, 8, 28, and 35 recites the limitation of "said first end is more flexible than said second end", one of ordinary skill in the art at the time the invention would not have been motivated to modify Grabek et al. in view of Reynolds et al. (or any of the other art of record as detailed above) to arrive at either independent claims 1, 8, 28,

and 35. Accordingly, claims 1, 8, 28, and 35 and their associated dependent claims are patentable over the art of record within the meaning of 35 U.S.C. § 103(a).

In light of the above discussion, all the pending claims are in condition for allowance, an indication of which is respectfully solicited.

If for any reason the Examiner feels that the application is not now in condition for allowance, he is respectfully requested to call the undersigned attorney to discuss any unresolved issues and to expedite the disposition of the application.

Filed concurrently herewith is a Petition (with payment) for an Extension of Time of One Month. Applicants hereby petition for any extension of time which may be required to maintain the pendency of this case, and any required fee for such extension is to be charged to Deposit Account No. 01-2218.

THE JOHNS HOPKINS UNIVERSITY
Applied Physics Laboratory

By


Aisha Ahmad

Reg. No. 47,381

Tel.: (240) 228-5644

Attachments

AA/ems